

## Examples of Institutional QI Leadership Applications

### Example #1:

#### Overview:

\* Describe the health care or health care related organization through which you have developed programs in health care QI and/or patient safety.

I am an Associate Professor for Medical Sciences and work entirely at a tertiary academic children's hospital. The hospital has 14 inpatient units including 4 ICUs and a hematology oncology unit. There is a large ED, a busy OR and multiple outpatient clinics, with a staff of approximately 500 physicians, 95 residents in pediatrics and pediatric specialties. Additionally, the hospital currently employs more than 4,400 employees.

\* Describe your training and experience in the science of QI and patient safety.

I completed the Quality Scholars Program in Transforming Health Care at Cincinnati Children's Hospital Medical Center. As part of this program, I completed two QI training courses: the Intermediate Improvement Science Series (I2S2) and the Advanced Improvement Methods Course (AIM).

\* Describe:

- Your role or position in the organization
- The way in which this position can influence health care quality and safety
- How you have used your role or position to positively influence health care quality and/or safety

I have served as the Medical Director of Infection Prevention and Hospital Epidemiology since 2012. Within this role, I help organize and lead multiple hospital-wide projects to reduce healthcare associated infections. During my role, I have led successful projects to improve healthcare worker hand hygiene, increase healthcare worker influenza vaccination, revise the hospital's transmission-based isolation practices, develop a family-centered visitor screening program and reduce healthcare-associated viral infections in our NICU.

I also serve as the course director for Improvement U, our hospital's quality improvement training program. I helped design this program in 2011 and have served as course director since that time. Over the past five years, the 6-month course has been taught 18 times. We have had 299 graduates including: 164 nurses, 44 physicians and multiple directors and vice presidents. A total of 157 QI projects have been developed as a part of this course. I have served as a mentor for many of these projects. Through Improvement U we have created a common language and skill set for QI at our hospital.

I also have helped design and lead the Pediatric Resident Quality Improvement and Patient Safety Curriculum.

First Project or Initiative:

\* Briefly describe the project/initiative:

Hand hygiene is the single most important action healthcare workers can perform to reduce healthcare associated infections. Baseline data revealed the hand hygiene compliance of healthcare workers (HCWs) at our hospital was only 73%. Our team and hospital leadership felt proper hand hygiene was a core safety behavior. Improving the hand hygiene behavior of healthcare workers at our hospital would play an integral role in transforming the safety culture at our hospital. Our goal was to increase HCW hand hygiene compliance from a baseline of 73% to 95% by July of 2014. A multi-disciplinary team led by Infection Prevention was started in February 2011.

\* Describe the specific role that you played in this project/initiative. Include an estimate of the time you devoted to this specific project/initiative.

I served as project co-lead. Within this role, I helped develop and validate the hand hygiene observation program, developed the goal and key drivers, guided the development and testing of interventions, reviewed and analyzed data and provided regular updates to senior leadership regarding the progress of the project.

At least 10% of my time was devoted to this project during its early stages of development.

\* Describe how this project/initiative contributed to the quality and/or safety mission of your organization or the overall quality of healthcare in your region or beyond.

Improving hand hygiene behavior of our healthcare workers became the primary safety initiative for the hospital for at least two years until we had clearly met our goal and were showing sustained improvement.

One intervention, the Speaking Up for Safety, program, which helps healthcare workers speak up when they witness a hand hygiene failure has been spread by employees to other witnessed safety concerns.

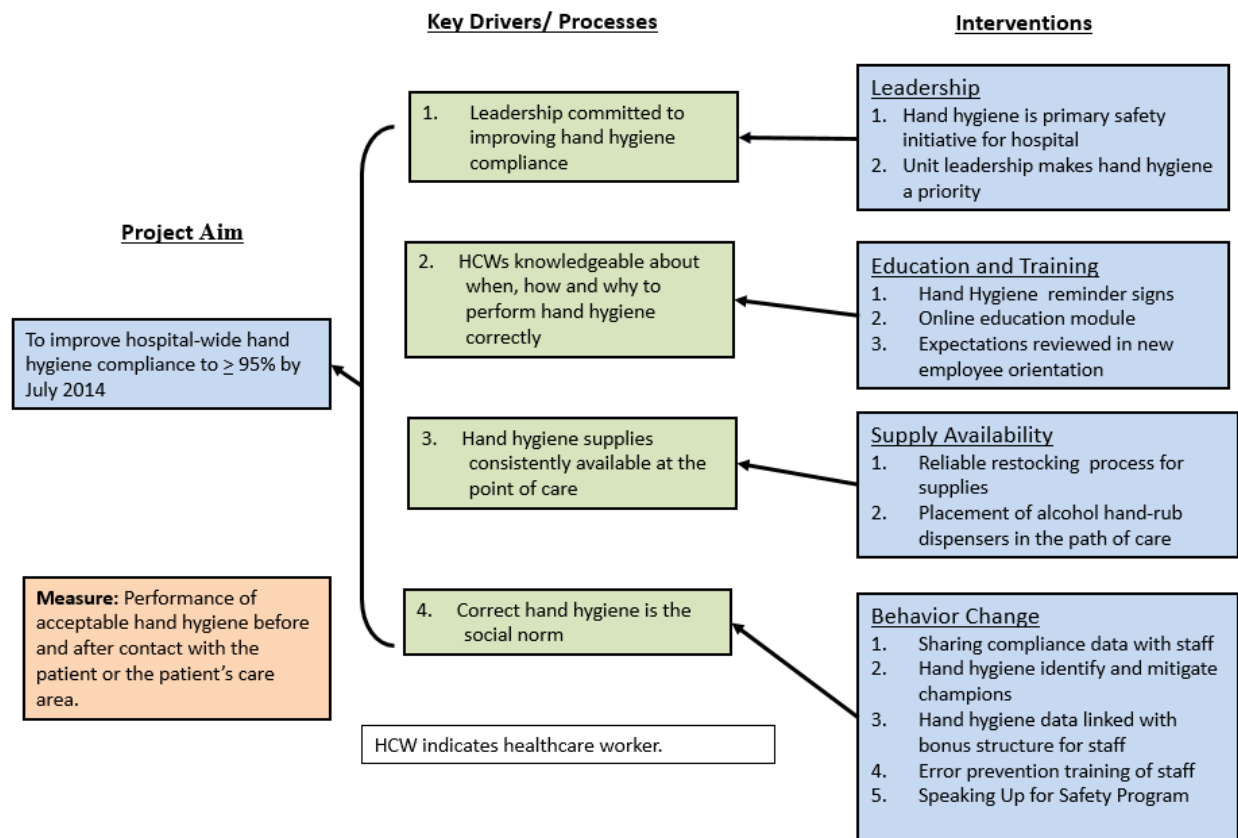
This project has been presented at the Children's Hospital Association Spring Meeting where it was presented as a Pediatric Quality Award finalist.

\* Attach specific quantitative evidence, up to 5 attachments, showing the impact of the project or initiative. Utilize the text field to describe this evidence.

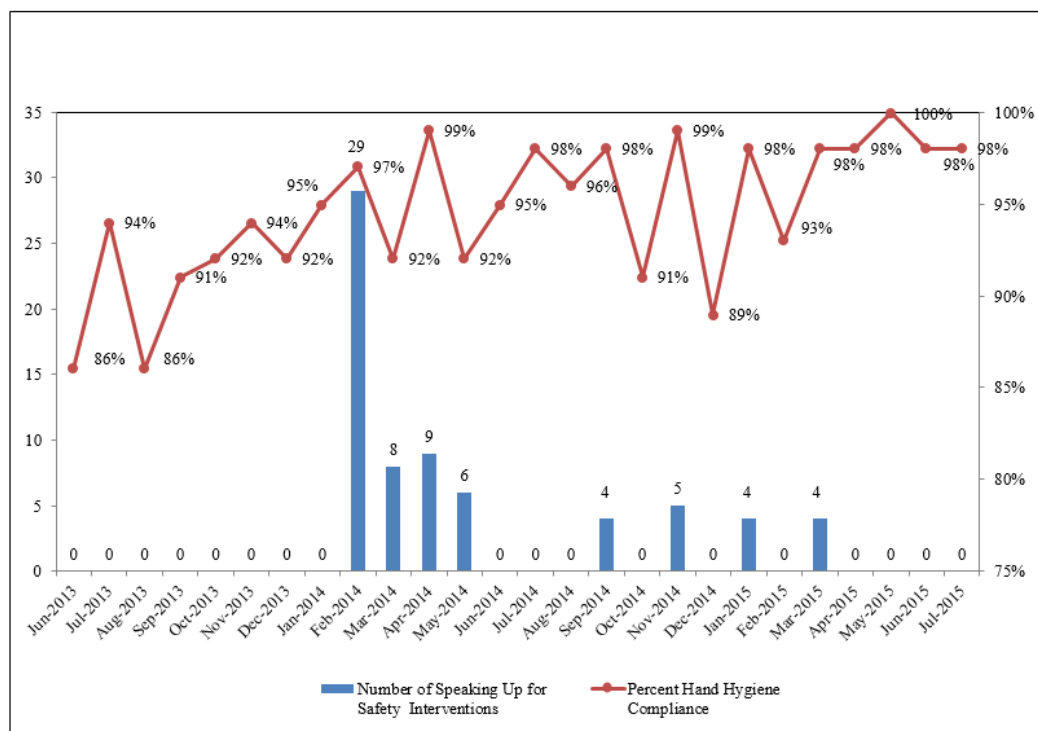
The attached presentation summarizes our hand hygiene project and provides: project setting and background, goal, data collection process, key driver diagram, description of key interventions, and annotated run charts.

\* Describe how this project has been, or will be, sustained over time.

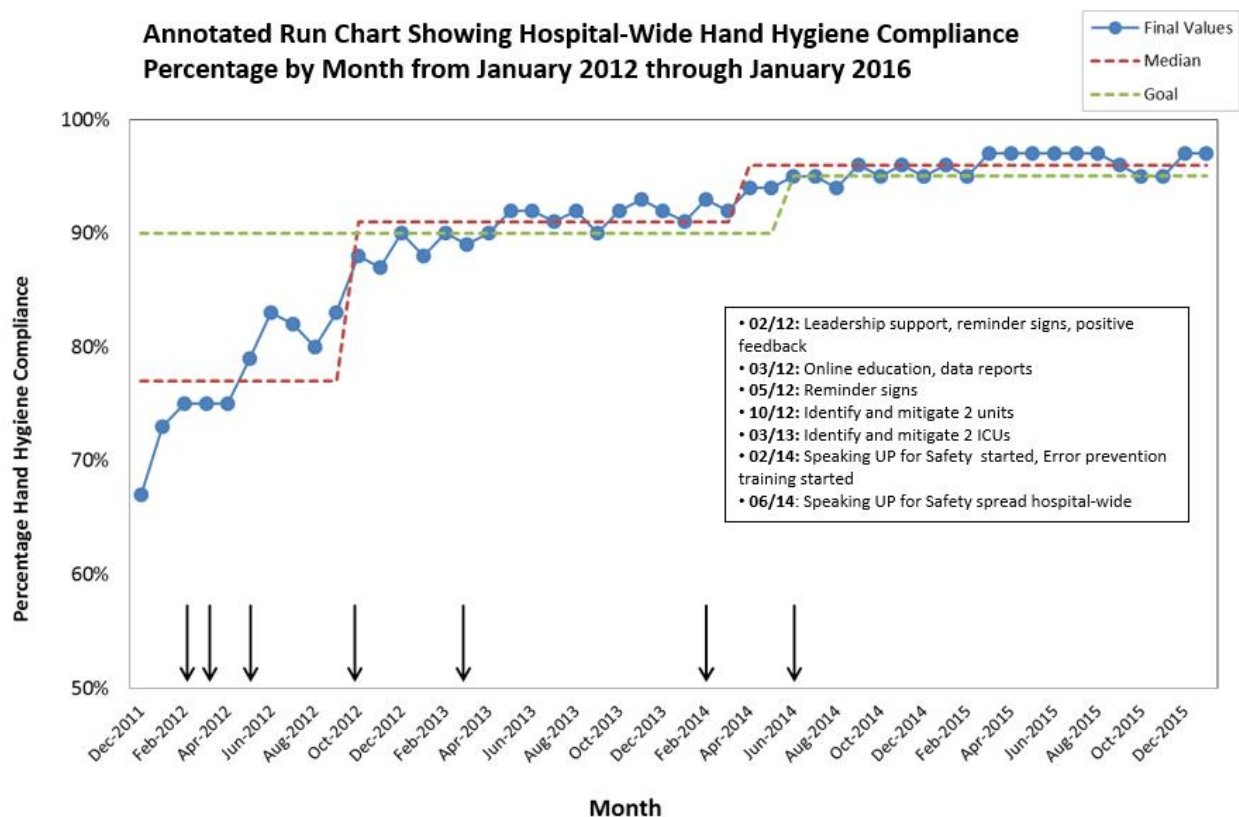
Hand hygiene compliance by healthcare workers has been 95% or greater for over 2 years. This is shown in the attached run chart. In addition, hand hygiene compliance from February to the present has continued to be 95% or greater.

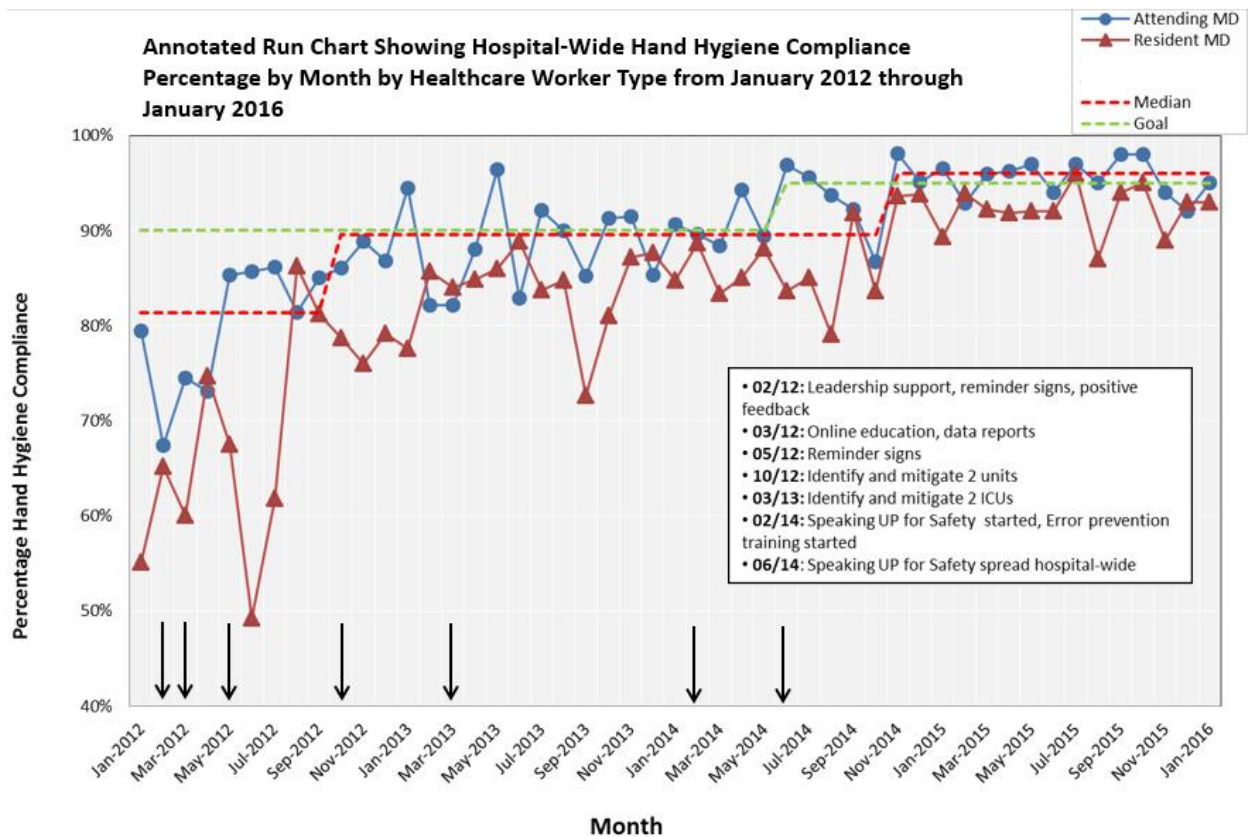


**Comparison of the Number of Times Healthcare Workers Intervened for Hand Hygiene Non-Compliance Each Month on the Initial Test Unit and the Change in the Healthcare Worker Hand Hygiene Compliance between June 2013 and July 2015**



**Annotated Run Chart Showing Hospital-Wide Hand Hygiene Compliance Percentage by Month from January 2012 through January 2016**





## Second Project or Initiative:

\* Briefly describe the project/initiative:

Our goal is to reduce VRHAIs from a monthly average of 4 to 3 infections per month (25% reduction) by July 1, 2017.

The key drivers that we are focusing on include:

- Preventing transmission by families and visitors
- Families and visitor perform hand hygiene
- Families and visitors do not visit when ill
- Preventing transmission by healthcare workers
- Healthcare workers perform hand hygiene
- Healthcare workers follow isolation precautions correctly
- Healthcare workers clean shared medical equipment
- Healthcare workers do not work when ill

\* Describe the specific role that you played in this project/initiative. Include an estimate of the time you devoted to this specific project/initiative.

I am co-leader of the project. I am responsible for developing the goal, identifying key drivers, overseeing and mentoring subprojects, developing and testing changes, analyzing data and reporting regularly to senior leadership.

I estimate at least 5% of my time is devoted to this project.

\* Describe how this project/initiative contributed to the quality and/or safety mission of your organization or the overall quality of healthcare in your region or beyond.

As previously noted, VRHAs account for 20% of our total number of HAIs and occur in high-risk populations. These infections result in escalations of care and prolonged hospitalization. Significant reduction in VRHAs will have a positive impact on our HAI numbers. Our hospital considers safety a core value and reduction of patient harm an overarching mission.

\* Attach specific quantitative evidence, up to 5 attachments, showing the impact of the project or initiative. Utilize the text field to describe this evidence.

Work to improve healthcare worker (HCW) hand hygiene began in January 2012 and has been ongoing since that time. HCW hand hygiene has been 95% or greater since June of 2014.

Between October 2010 and October 2014 isolation signs were revised and education was performed to encourage symptom-based isolation. HCW compliance with posted isolation precaution signs has been 90% or greater since November 2014.

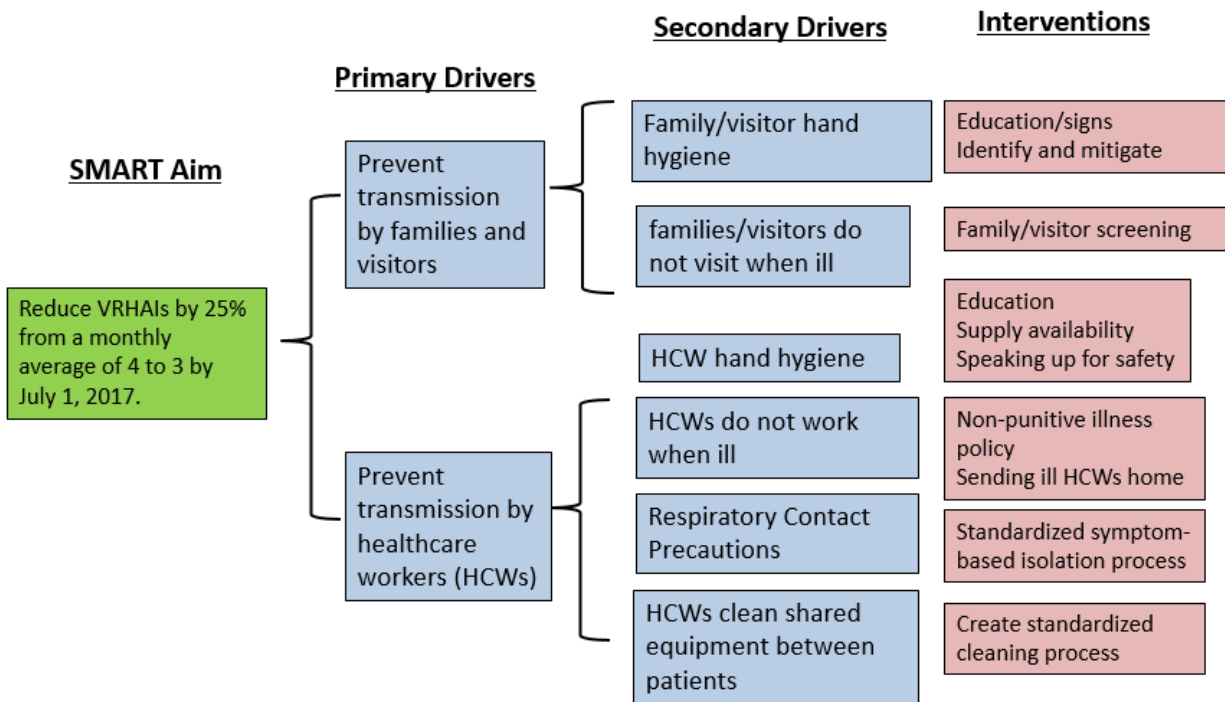
In July of 2015, a project was begun in the NICU to increase family and visitor hand hygiene. Interventions increased family/visitor hand hygiene to over 80% between October and December. Between August and December 2015, there was a 90% reduction in VRHAs. Projects are being developed to spread this to other areas of the hospital.

In fall of 2015, we created family/visitor sign-in process that included screening for ill symptoms. This was initially tested on a few units then spread throughout the hospital. Interventions are being developed to increase the reliability of this process.

\* Describe how this project has been, or will be, sustained over time.

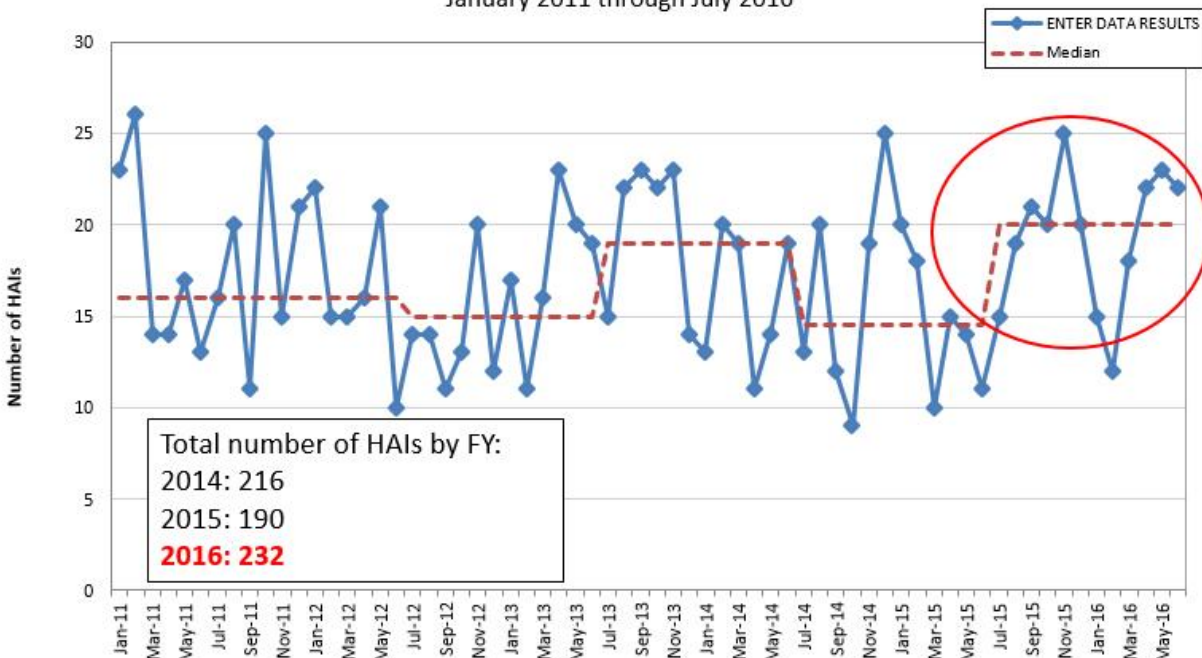
Work to reduce VRHAs had been ongoing for over a year, but in July 2016, the project to reduce VRHAs became a formal healthcare acquired condition (HAC) reduction team at our hospital. These teams are required to meet consistently and are held accountable for showing improvement through monthly reporting to hospital senior leadership.

# Key Driver Diagram



## Hospital Healthcare Associated Infections

January 2011 through July 2016



**Data 1/2016**

Infection Type	Percentage (%)	Cumulative Percentage (%)
SSI	22.4%	22.4%
Viral URI	42.6%	65.0%
CLABSI	55.3%	80.6%
SST	62.9%	89.9%
CAUTI	69.6%	92.8%
UTI	75.1%	95.4%
VAP	80.6%	97.9%
GI	85.2%	98.7%
Conj	89.9%	99.2%
Pneu	92.8%	99.6%
BSI	95.4%	100.0%
LCB/MBI	97.9%	
Lung	98.7%	
Oral	99.2%	
CNS/meningiti	99.6%	
Urinary tract s	100.0%	

**Hospital Healthcare Associated Infections**

FY2016

Category Percentage

Cumulative Percentage

Location	Category Percentage	Cumulative Percentage
3K	13	27.3%
NICU	12	59.1%
CVICU	8	68.8%
SE	4	77.3%
PICU	3	80.3%
3C	3	86.6%
5D	3	95.8%
4K	1	97.9%
4E	1	100.0%

Location of HAI VUR

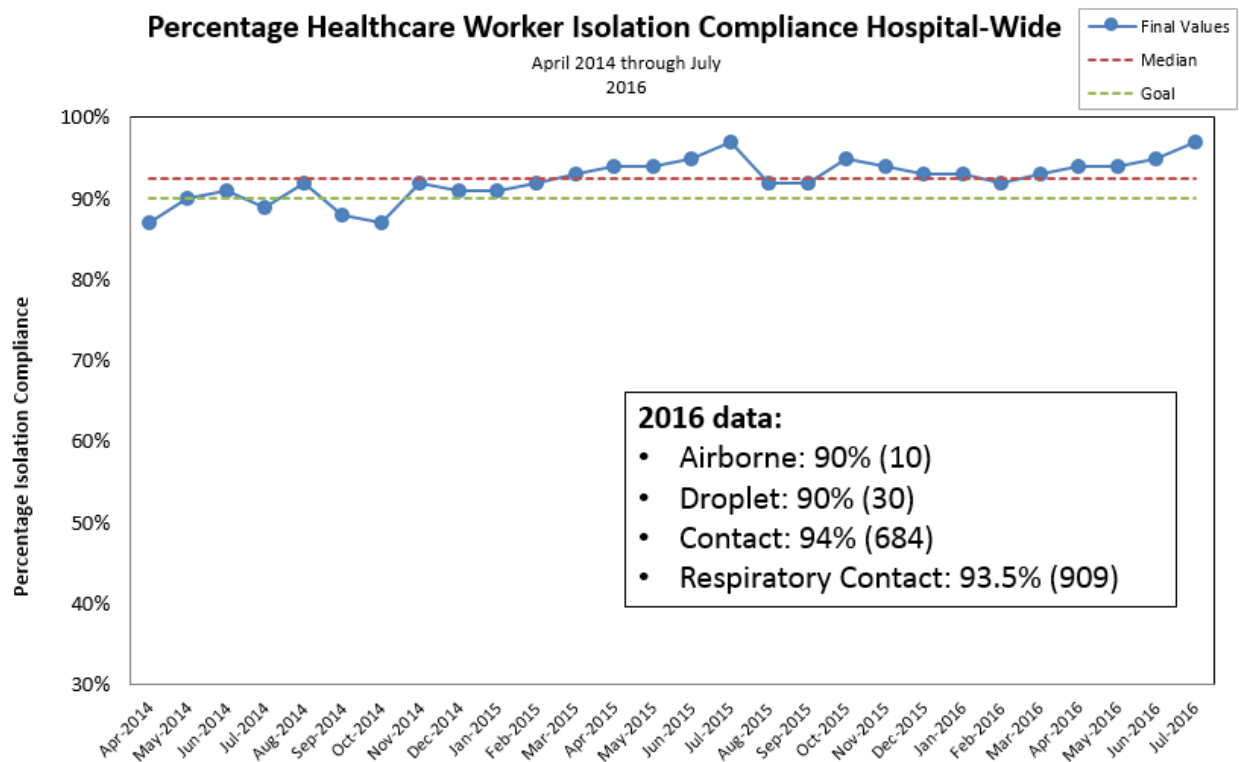
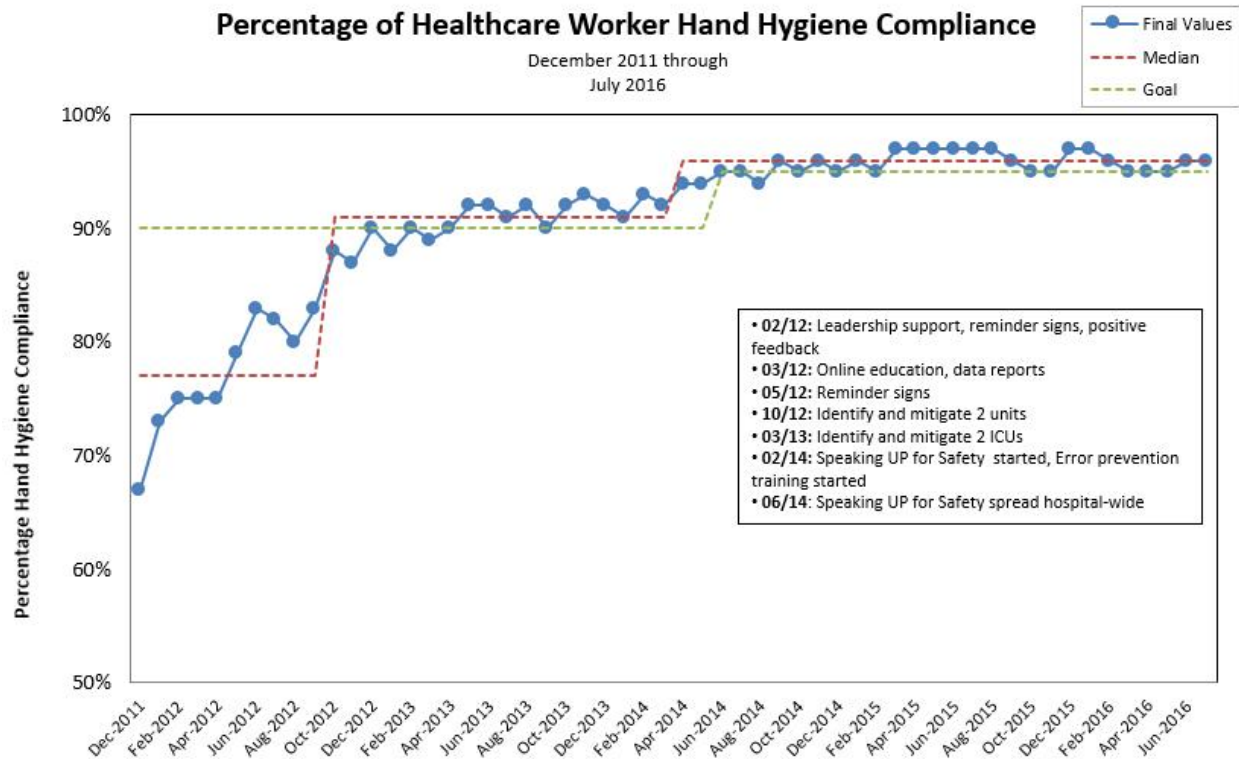
Prepared by: Unity Wireless, Inc. 8/2/18  
 Info: Risk Prevention & Control/Info Systems/Support

- FY16: 48**

FY	ITU	NICU	CVICU
FY14	9	15	5
FY15	14	15	3
FY16	12	13	8

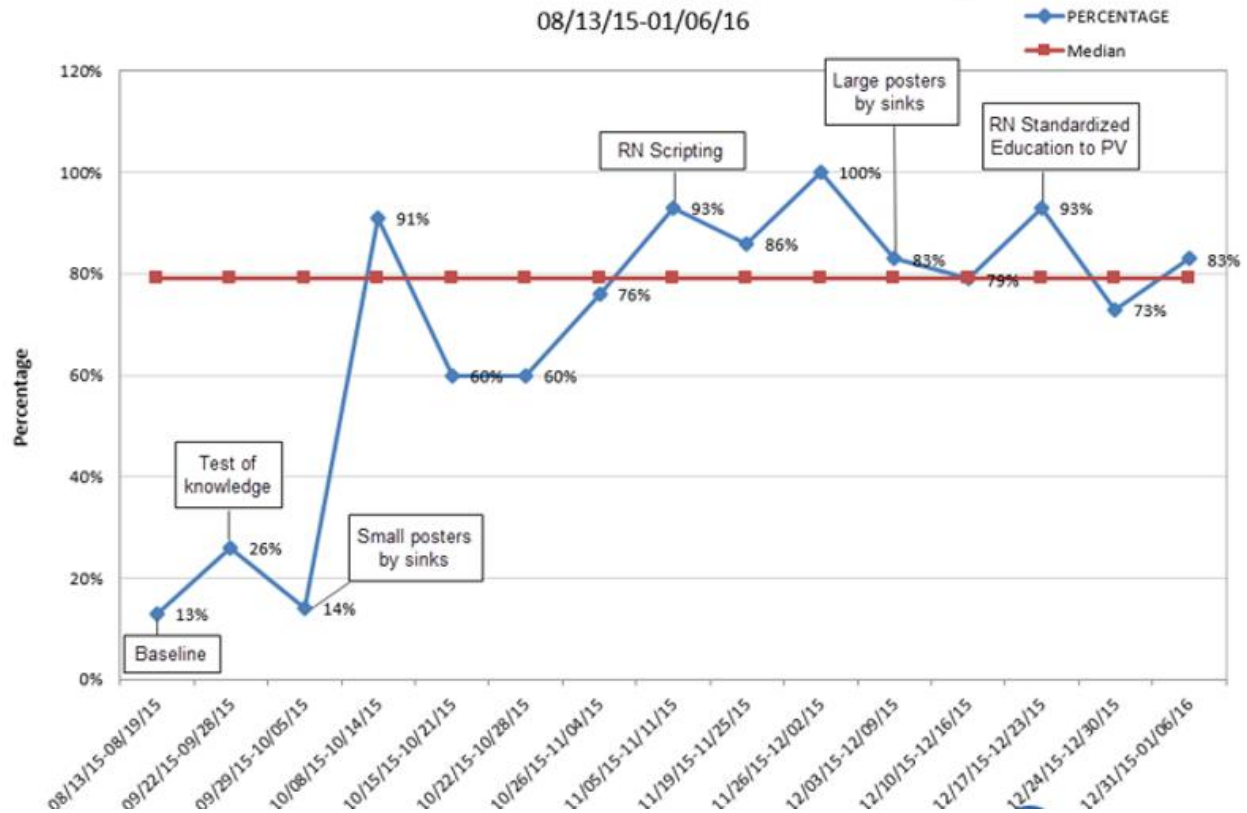
Respiratory viral HAIs  
account for **21%** of total HAIs



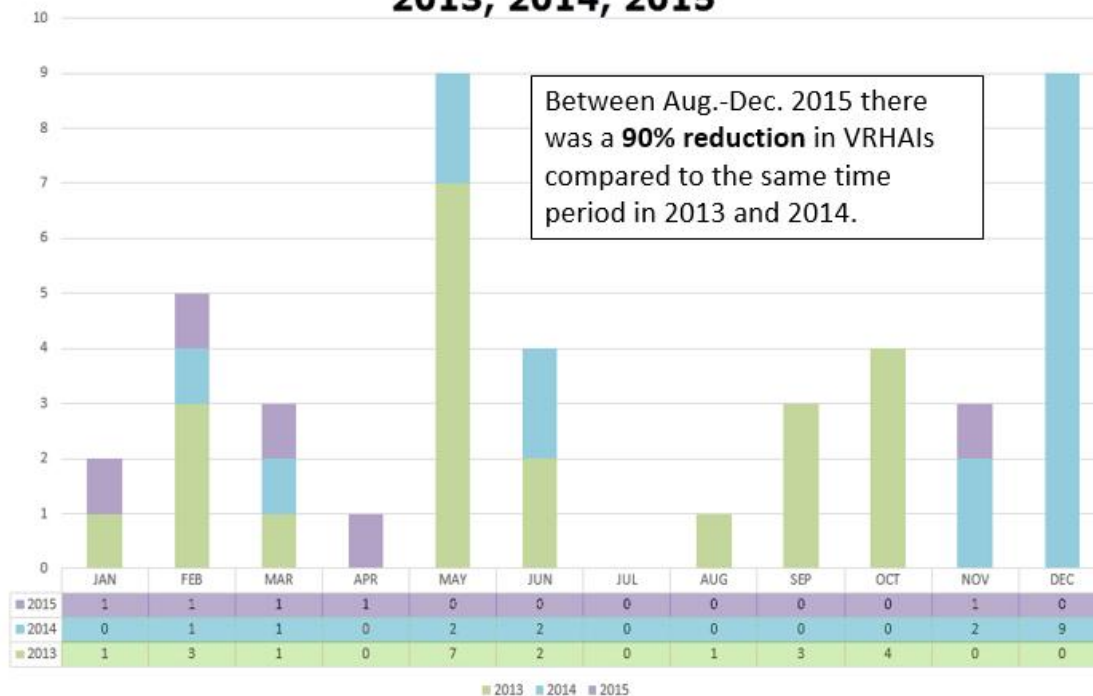


# Parent Visitor Hand Hygiene Compliance

08/13/15-01/06/16

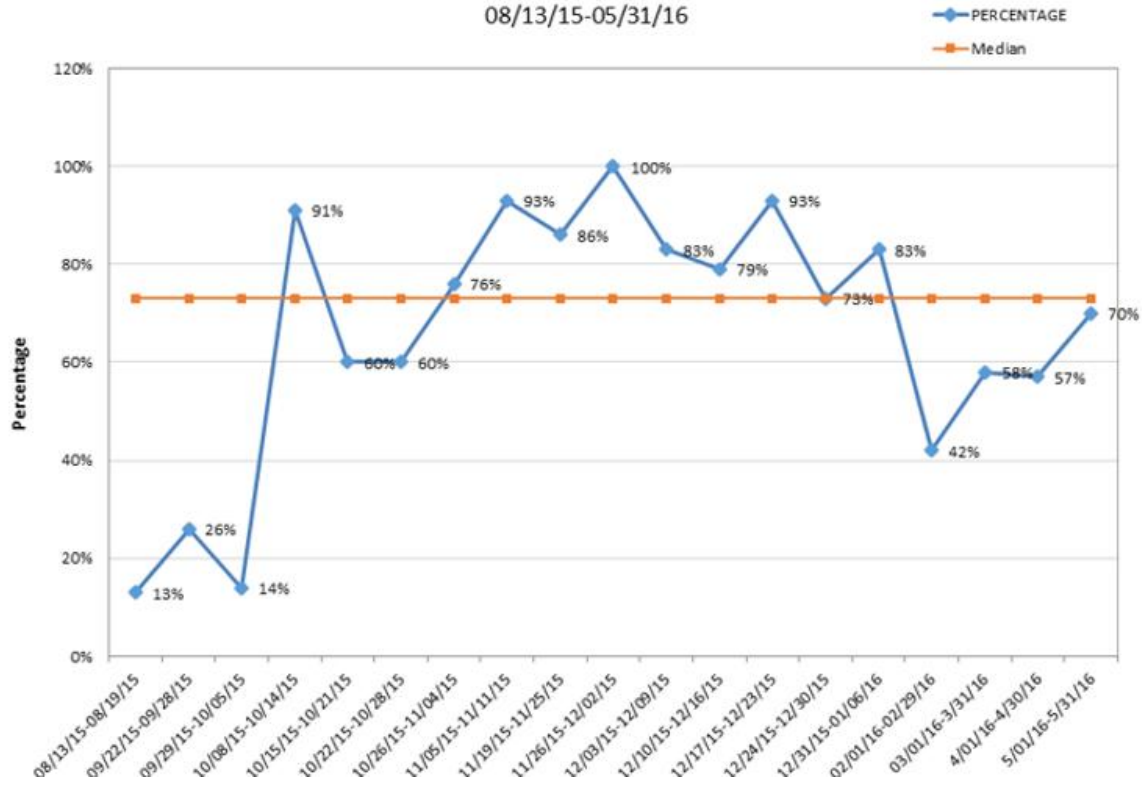


## NICU Viral URIs 2013, 2014, 2015

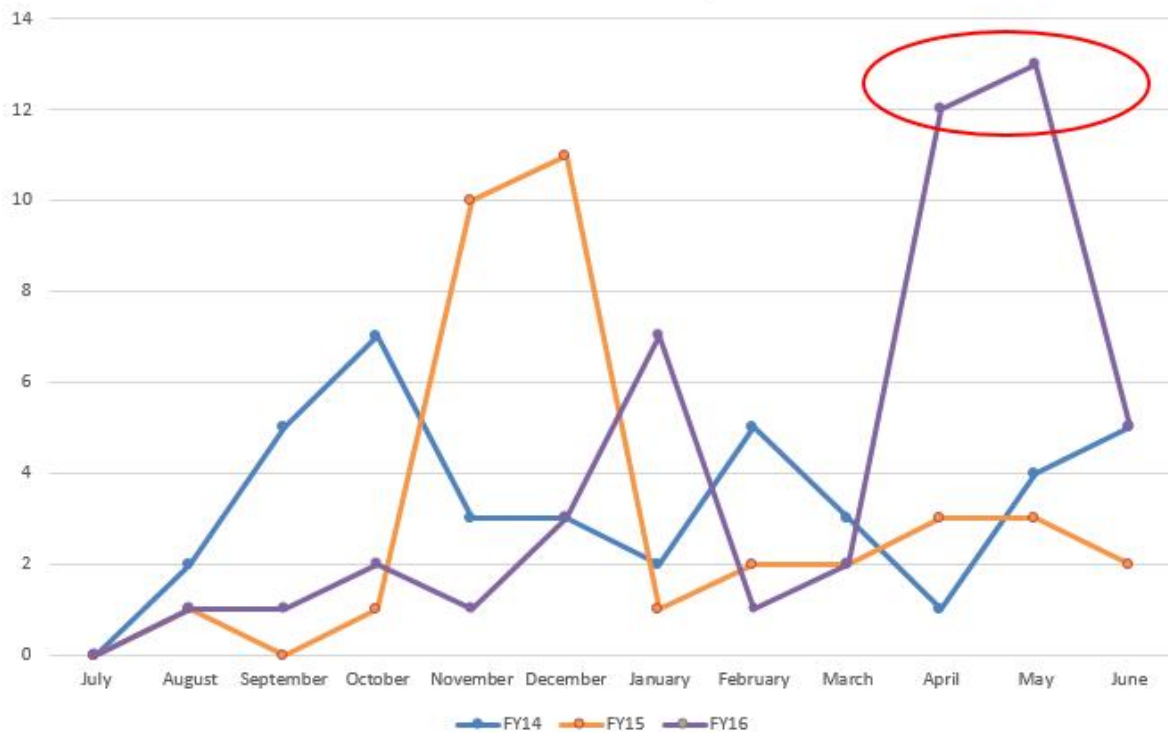


# Parent Visitor Hand Hygiene Compliance

08/13/15-05/31/16



## VURIs FY14, FY15, FY16 by Month



## Examples of Institutional QI Leadership Applications

### Example #2:

#### Overview:

\* Describe the health care or health care related organization through which you have developed programs in health care QI and/or patient safety.

My work has primarily been at a large integrated health system with major affiliates in three states.

\* Describe your training and experience in the science of QI and patient safety.

I earned a Bachelor of Science degree with honors in mathematics. That degree included a year of mathematical statistics and my honors thesis was a statistical analysis. During graduate school in statistics, I took additional rigorous mathematical statistics classes as well as a class entitled "Statistical Process Control" - the basic science that undergirds much of QI science around processes. I earned a Master of Science degree in Health Informatics. That program included training in Quality Improvement and Safety. In addition, I successfully completed a full-semester elective course on Quality Improvement in Medicine as part of that degree. That training included topics including but not limited to statistical process control and run charting, CREW resource management concepts and techniques, Plan-Do-Study-Act, Just Culture, Human Factors engineering, General Error Classification, 5 Whys, etc. I have significant experience putting this training into action at my organization in both leadership and non-leadership roles.

\* Describe:

Your role or position in the organization

The way in which this position can influence health care quality and safety

How you have used your role or position to positively influence health care quality and/or safety

I began serving as the Medical Director of Neonatology in 2013 and am currently Secretary/Treasurer of our Medical Staff. I have been a clinical neonatologist since 2008. I served as Assistant Chair of the Department of Pediatrics between 2009 and 2010 and subsequently as Chair of the Department of Pediatrics from 2010-2016. I am also an informaticist and have worked on projects to utilize health informatics to improve quality and safety.

In these roles, I have chaired and/or served on numerous committees and workgroups dedicated to improving the quality and safety of the healthcare delivered in our health system, hospital, and unit. I am chair of our unit-level Continuous Quality Improvement committee, chair of the medical staff Physician Informatics Committee, co-chair of the Peer Review committee, and serve on numerous other

committees including the Medical Executive Committee, Inpatient Physician Advisory Committee for Information Technology, etc.

These roles have given me not only the opportunity to influence existing projects, but to shape agendas or direct resources to projects that positively influence health care quality and/or safety.

First Project or Initiative:

\* Briefly describe the project/initiative:

Prolonged antibiotic exposure has been identified as an independent risk factor for morbidity in preterm infants. Our goal was to measure and reduce the number of "antibiotic use days" among patients in our NICU.

\* Describe the specific role that you played in this project/initiative. Include an estimate of the time you devoted to this specific project/initiative.

I attended a lecture by a neonatologist in which he described his unit's efforts at consistent evidence-based practice. Studies had also demonstrated an approach to early onset sepsis that included both the maternal risk factors and the infant's clinical condition. (1) There was also a commentary from members of the Committee on Fetus and Newborn of the AAP which provided some guidance about a reasonable approach to early termination of antibiotics. (2)

Synthesizing these, I created an Early Onset Sepsis candidate guideline that utilized the risk-assessment and criteria for the assessment of clinical signs from the Puopolo paper and added criteria for "early" discontinuation of antibiotic therapy. As medical director of our unit, I added this protocol to our division meeting agenda and it was debated and ultimately adopted with minor modifications.

The protocol was disseminated to nursing staff for review prior to its implementation and a "go-live" date of May 1, 2014 was agreed upon. After that time, our practice changed and was consistent with the guideline.

A run chart computing our antibiotic use rate by month demonstrates that our antibiotic use rate has fallen since that date from an average of 31.8 antibiotic days per 100 patient days to approximately 20.7 antibiotic days per 100 patient days. This puts us towards the lower end of antibiotic use rates for NICUs per a recent paper in 2015. (3) We continue to track this number and (on my direction as Medical Director) are currently enrolled in a Vermont Oxford iNICQ quality improvement initiative to seek further improvement on this.

\* Describe how this project/initiative contributed to the quality and/or safety mission of your organization or the overall quality of healthcare in your region or beyond.

Antibiotic use in the NICU varies dramatically from unit to unit for no discernable evidence-based reason. (1) This often results from a culture of "caution" or general provider preference. There is rapidly accumulating evidence that alterations to the microbiome caused by widespread use of "empiric" antibiotics leads to unwanted consequences. For this reason and others, codifying our approach to early

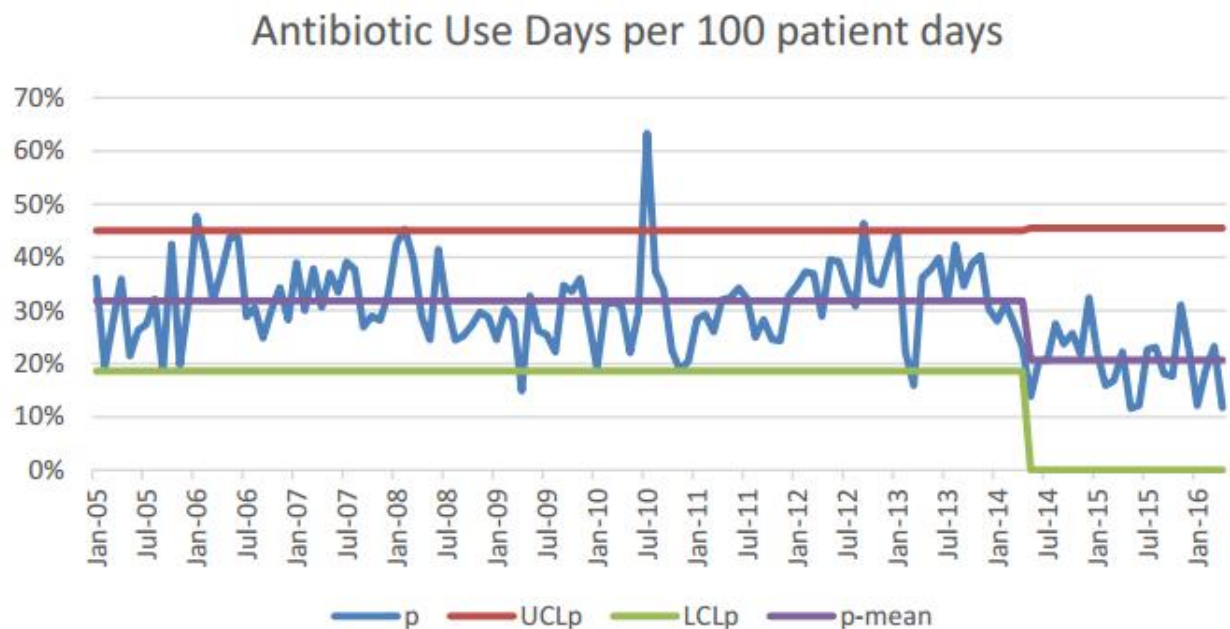
onset sepsis brought a consistency of practice to our unit that is beneficial. This consistent approach also incorporated very conservative indications for stopping empiric antibiotics when they would have been continued without clear benefit in the past. This has resulted in a substantial reduction in our antibiotic use days with which we are quite pleased.

\* Attach specific quantitative evidence, up to 5 attachments, showing the impact of the project or initiative. Utilize the text field to describe this evidence.

The attached file includes a run chart showing our antibiotic use days prior to and after the introduction of the intervention in May 2014. The spreadsheet including the monthly data imported by SQL query of our Patient Management System (NeoData) can be included if desired.

\* Describe how this project has been, or will be, sustained over time.

Our AUR is regularly updated and reviewed for anomalous months exceeding our control limits. We are participating in a Vermont Oxford iNICQ Quality project that is reviewing this exact topic and finding that our current protocol is very good, but that we will want to extend our efforts to include antibiotic stewardship initiatives, etc. As medical director, I will continue utilizing this metric as a part of my quality dashboard and work without our NICU leadership team to maintain and keep it updated.



## Second Project or Initiative:

\* Briefly describe the project/initiative:

CLABSI initiatives are almost de rigueur as a worthwhile project for which abundant support/data is available. We have long believed that use of a standardized feeding protocol was another way to reduce our need for central line access to provide nutrition. This project was aimed at reducing our days to "full feedings" (we defined this as the day on which an infant was written for 120 mL/kg/day of enteral feedings).

\* Describe the specific role that you played in this project/initiative. Include an estimate of the time you devoted to this specific project/initiative.

As chair of the Evidence Based Practice Committee, I conceived of this project and convened a small team including nurses, our dietician, and advanced practitioners to conduct it. I led the team and contributed substantially to the literature search, literature review, and protocol revision. I assembled the final revision and brought it to our division for formal review and adoption. I conducted all of the data extraction and subsequent analysis. I have put in no less than 40 hours on this project.

\* Describe how this project/initiative contributed to the quality and/or safety mission of your organization or the overall quality of healthcare in your region or beyond.

This project contributed substantially to our quality and safety. First, it reduced our median days to full feedings by 7 days (from 21 to 14) for our smallest infants and by 5.5 days (18 to 12.5) for our infants 25+1 to 27 weeks. It reduced the average days to full feedings by even larger amounts. Moreover, we saw a significant reduction in our standard deviation in this measure.

This was of enormous benefit to our smallest patients in at least two ways: 1) reduced need for central lines 2) earlier better nutrition. We also participate in VON and can say that we have not seen an increase in necrotizing enterocolitis since these protocols were adopted.

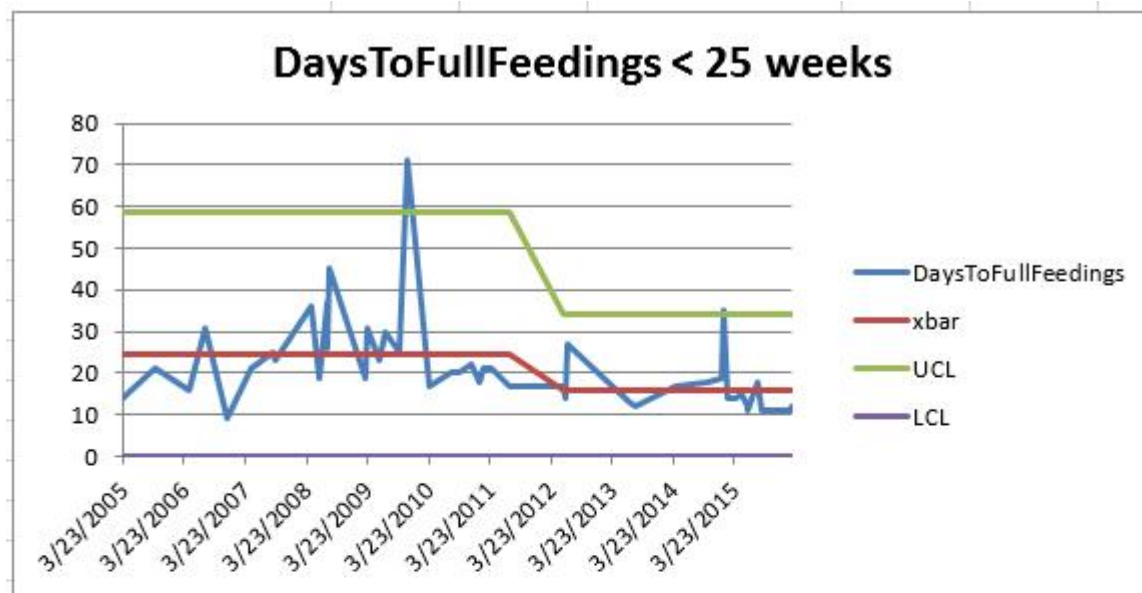
\* Attach specific quantitative evidence, up to 5 attachments, showing the impact of the project or initiative. Utilize the text field to describe this evidence.

The attached files are screen captures of the analysis portion of our spreadsheet data for our smallest infants. The captures include a run chart as well as a generic statistical analysis of the data. The raw data on the spreadsheet is not de-identified and not suitable for upload in its present form. If necessary, I can scrub the files of PHI and upload them.

\* Describe how this project has been, or will be, sustained over time.



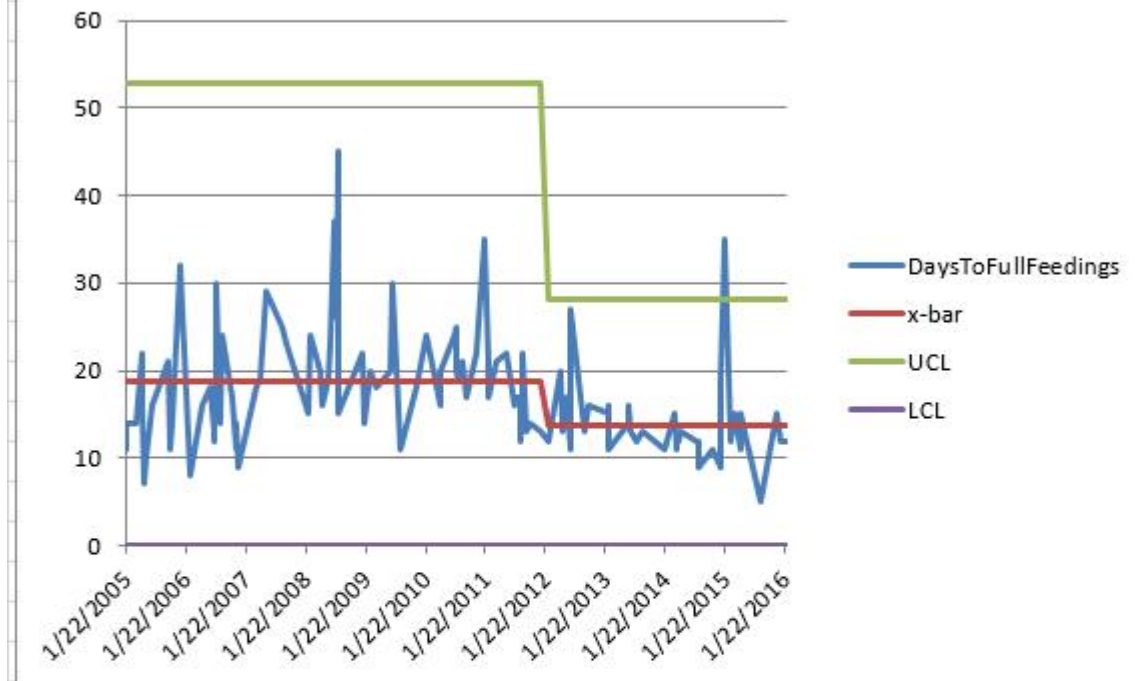
This project is regularly reviewed as new data is brought in. As we speak, we have convened a small team to review our current protocol in light of new evidence and recommend alterations if any are needed.



2005-2011		2012-today	
Mean	24.72414	Mean	15.84211
Standard Error	2.163226	Standard Error	1.400215
Median	21	Median	14
Mode	21	Mode	11
Standard Deviation	11.32237	Standard Deviation	6.103398
Sample Variance	131.0273	Sample Variance	35.29086
Kurtosis	8.418146	Kurtosis	5.001115
Skewness	2.495791	Skewness	2.132532
Range	62	Range	24
Minimum	9	Minimum	11
Maximum	71	Maximum	35
Sum	717	Sum	301
Count	29	Count	19

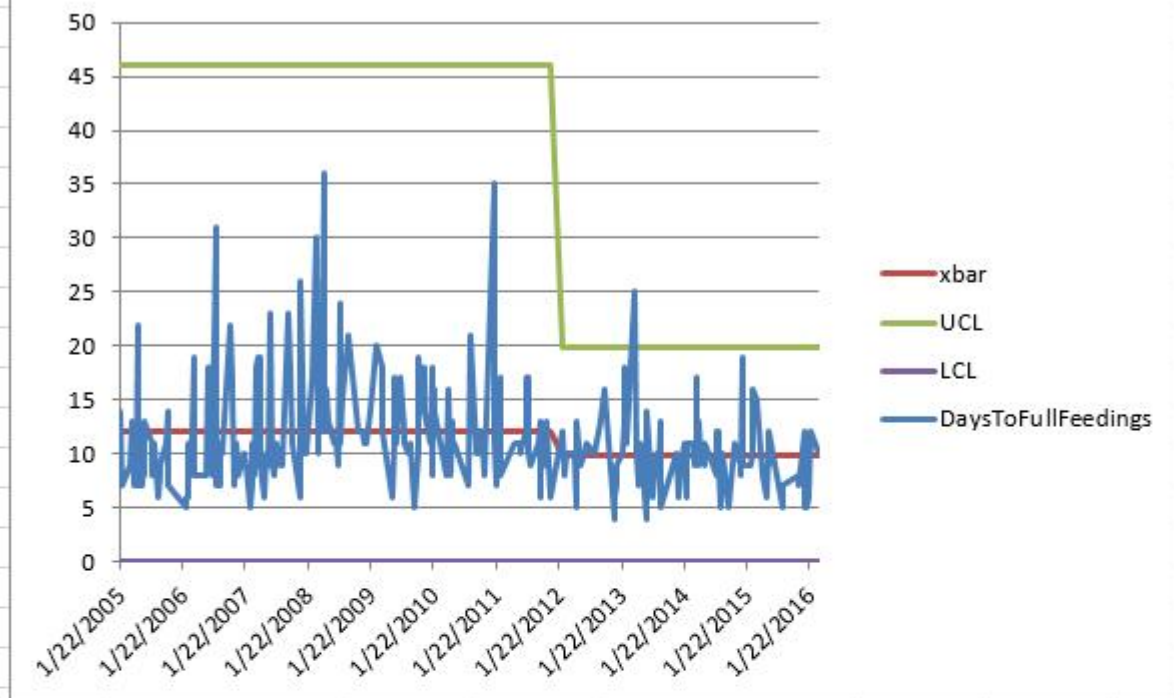


### DaysToFullFeedings - 25+1 to 27 weeks



2005-2011		2012-today	
Mean	18.86486	Mean	13.79545
Standard Error	0.78356	Standard Error	0.71571
Median	18	Median	12.5
Mode	14	Mode	12
Standard Deviation	11.32237	Standard Deviation	4.747482
Sample Variance	44.81958	Sample Variance	22.02634
Kurtosis	2.644438	Kurtosis	9.566173
Skewness	1.229562	Skewness	2.535127
Range	38	Range	30
Minimum	7	Minimum	5
Maximum	45	Maximum	35
Sum	1396	Sum	607
Count	74	Count	44

## DaysToFullFeedings - 27+1 to 30 weeks



2005-2011		2012-today	
Mean	12.14815	Mean	9.867347
Standard Error	0.377288	Standard Error	0.33413
Median	11	Median	10
Mode	11	Mode	10
Standard Deviation	11.32237	Standard Deviation	3.307716
Sample Variance	26.76112	Sample Variance	10.82934
Kurtosis	4.614168	Kurtosis	4.150335
Skewness	1.79304	Skewness	1.242767
Range	31	Range	21
Minimum	5	Minimum	4
Maximum	36	Maximum	25
Sum	2296	Sum	967
Count	189	Count	98

## Examples of Institutional QI Leadership Applications

### Example #3:

#### Overview:

\* Describe the health care or health care related organization through which you have developed programs in health care QI and/or patient safety.

I am a Pediatrician serving in the United States Air Force. I have worked on QI and Patient Safety programs over the last 20 years in multiple roles from data gathering, through development, to directing execution. During this MOC cycle I have been involved with development and execution of programs at the clinic, hospital, Air Force, and Department of Defense levels. In the last five years I have been a Chief of Medical Staff at an AF hospital abroad for two years, the Commander of a Medical Operations Squadron at a regional AF hospital in the USA with 450+ staff for two years, and I am currently the Commander of a U.S. military hospital overseas with 800+ staff.

\* Describe your training and experience in the science of QI and patient safety.

I received formal training on QI and Patient Safety by attending the; DoD Patient Safety Summit, the Air Force Continuous Process Improvement-Senior Leader course, the AF PCMH senior leader course, QSPAR (summit for Air Force Chiefs of Medical Staff, Quality, and Risk Managers training on safety, quality, credentialing), the Intermediate Executive Skills Course (core training for future Chiefs of Medical Staff on process, quality, and safety science). In addition I am a Certified Physician Executive through the American Association for Physician Leadership. This program has a large core of QI and Patient Safety requirements which were fulfilled through many hours of didactic teaching, as well as multiple small group and individual projects.

I have been a; pediatric clinic chief, medical director for an integrated system of primary care clinics and Emergency Room, Deputy Chief of Medical Staff at 3 hospitals, full time Chief of Medical Staff at 2 hospitals, Medical Operations Squadron Commander for a regional AF hospital in charge of primary care, non-surgical specialty care, mental health, and emergency room services, and am currently the Hospital Commander for the A.F.'s regional hospital responsible for care and support for troops in the United Kingdom as well as forward deployable medical assets supporting actions in Europe and Africa.

In all of these positions I have been directly involved in developing policies and procedures for improved Patient Safety. These efforts have utilized QI science with review at the local, regional, and the AF level. This has been especially true over the last 5 years while I have been in either the position of Commander or Chief of Medical Staff and my formal training has expanded. My more recent efforts have focused on "meta-program" development with my individual efforts focusing on education, oversight, and mentoring to subordinate senior staff on how you build the architectures required for hospital wide PI program development and maturation.

\* Describe:

Your role or position in the organization

The way in which this position can influence health care quality and safety

How you have used your role or position to positively influence health care quality and/or safety

I am currently a Medical Group Commander. I act as the senior medical officer and consultant to three Air Force Wing Commander's as we develop policies and programs to ensure the health of the force. I am directly responsible for training, equipping, and directing staff under my command. I supervise the Chief of the Medical Staff (and through him quality and patient safety staff), the Chief Nurse, Hospital Administrator, and subordinate Squadron Commanders for all areas of the hospital, public health, and other satellite functions. The Group Commander acts as the approval authority for the institutions strategic plan, data quality statements, business plans, and act as the ultimate credentialing authority for all providers. I am responsible to review and approve medical emergency response and contingency plans and develop plans and procedures for integration with local and host nation military and civilian partner agencies. The Medical Group Commander is also responsible for developing an institutional self-inspection program ensuring compliance with DoD and AF directives as well as compliance with civilian agencies like the JC. The Commander acts as the approval authority for corrective action plans developed to address deficiencies identified through internal monitoring or external inspections and to communicate this, as well as evidence of success to higher headquarters. In addition the Commander is charged with developing a CPI program within the institution driving toward the Air Force Medical Services goal of becoming a highly reliable organization.

I use my position to achieve this by setting the institutions goals. I communicate to the staff the importance of patient safety, positive patient experience, staff development, and mission achievement on a regular basis through morning safety huddles, leadership rounds, staff education activities, and by the choices I make in resource allocation. I support and have oversight over my quality and patient safety staffs ongoing CPI activities and sponsor recognition programs for exceptional performers on a regular basis. I have prioritized innovation and patient safety as well as the use of QI science in our strategic plan and have established oversight functions that are data driven with improved outcomes as a goal.

First Project or Initiative:

\* Briefly describe the project/initiative:

Our initiative was focused on improving Health Care Effectiveness Data and Information Set (HEDIS) measures across our organization utilizing standardized procedures for data gathering, reporting, and analysis. Our institution subsequently achieved the highest composite score for these measures in the Air Force. We were asked to develop a description of the process to help educate other institutions on the process (see executive summary I drafted to the Commander of the Air Force Medical Operations Agency in the attachments). I included two individual initiative descriptions and data as examples; breast cancer screening and our well child visit program. The two programs are meant to provide preventative assessment/screens to allow for intervention/prevention to a broad population. We

developed a process to identify our target populations, timelines in which they would need to accomplish their assessment in order to meet our goals, and systems by which we could reach out prior to the individual becoming "non-compliant" through a standardized, specifically assigned, tracked process. We also identified oversight functions that would allow this information to be reviewed, discussed with experts in the subject and process improvement, and for best practices to be shared and applied to individual problem sets.

\* Describe the specific role that you played in this project/initiative. Include an estimate of the time you devoted to this specific project/initiative.

As the Chief of Medical Staff of an Air Base, I was responsible for overseeing and ensuring improvements across multiple individual and population based health programs. After assuming this role, I realized many of our programs were succeeding or failing based on the personality of program "champions" and that the quality of data analysis, monitoring, and reporting was highly variable from area to area as was higher level leadership buy-in. I felt that by applying basic process/quality improvement techniques we could see some significant improvements. As two of our HEDIS metrics, breast cancer screening and compliance with well child visit recommendations were selected as targets for improvement initiative development and tracking. I engaged with staff and did initial education on process improvement techniques, met with them monthly to review corrective action plans, outcome measures, and to assess what they might need in regard to staff/IT support/engagement with leadership to ensure success. This was part of a larger project overhaul initiative (described in executive summary attached) and also included initial programs for; antidepressant medication follow-up, diabetes care, and childhood immunizations. Overall I would estimate I dedicated 120 hours of direct time initiating the changes for this initiative and then continued oversight of the project as a monthly set agenda item in our population health committee.

\* Describe how this project/initiative contributed to the quality and/or safety mission of your organization or the overall quality of healthcare in your region or beyond.

These project significantly improved the compliance of our population with screening exams, reducing the risk for missed or delayed diagnosis, increased educational contacts, and improved continuity of care across several populations. Improvements in breast cancer screening have been sustained, and within three months all goals for the well child compliance had been exceeded. Later this same process was used to develop a process for managing our cervical cancer screening program in the same institution.

\* Attach specific quantitative evidence, up to 5 attachments, showing the impact of the project or initiative. Utilize the text field to describe this evidence.

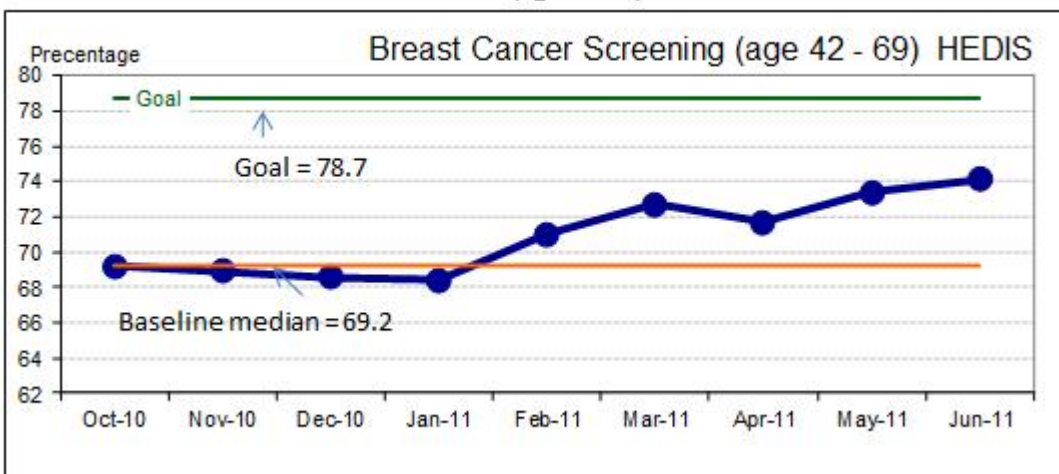
Attached you will find the executive summary I developed describing our process of standardization and improvement of management of our HEDIS measures through our population health function. This was sent to the Air Force Medical Operations Agency at their request given our institutions marked

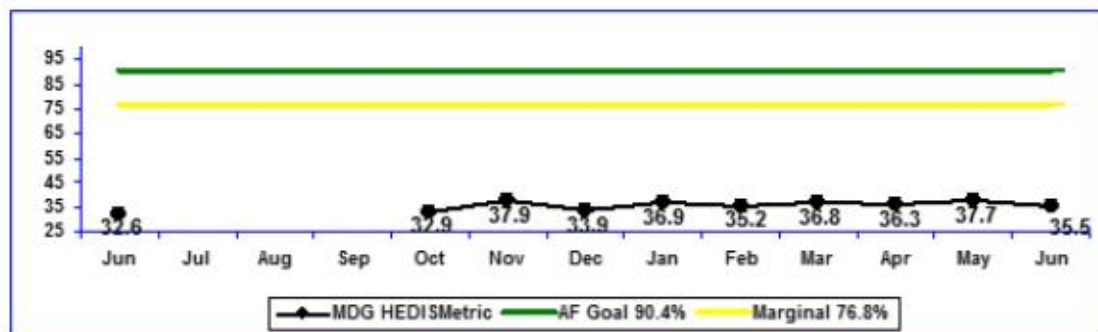
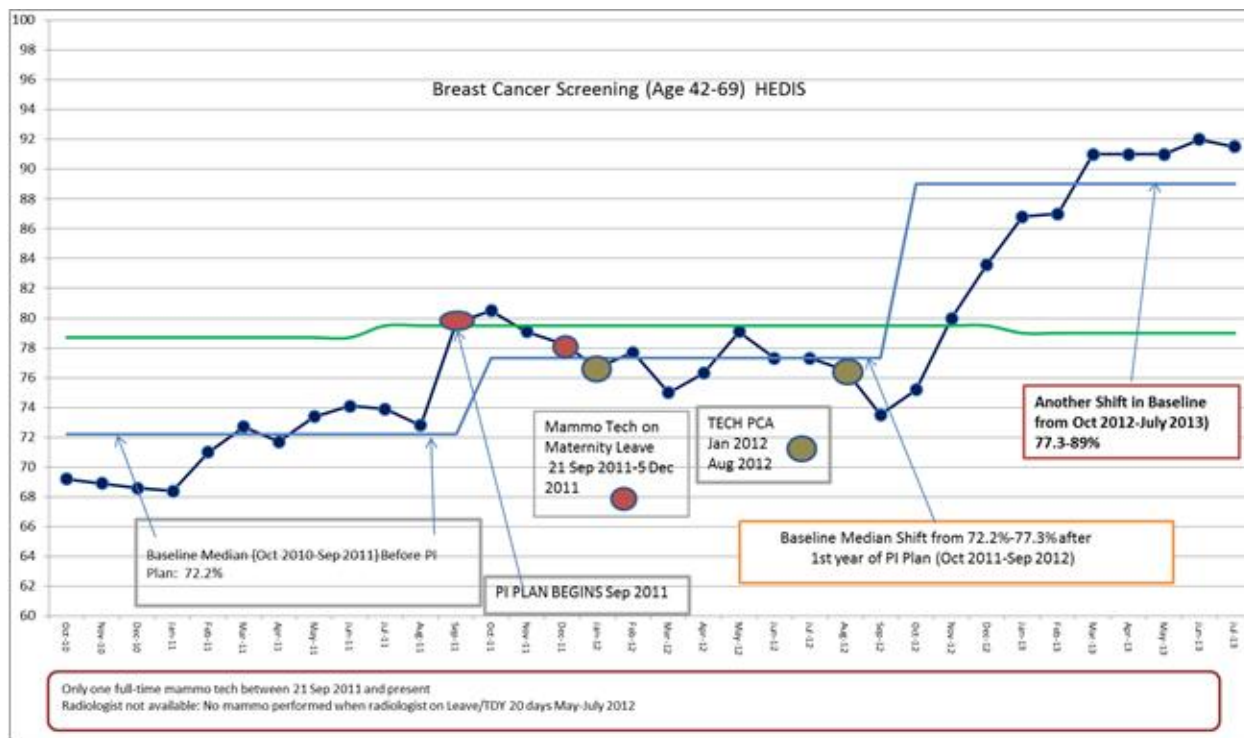
improvements over 12 months across all measures. Breast cancer screening and Well child visits were used as two examples of what was done across all measures. As you can see from our run chart and the narratives in the PI form simple generalizable techniques were used and resulted in significant improvements in our outcome measures.

\* Describe how this project has been, or will be, sustained over time.

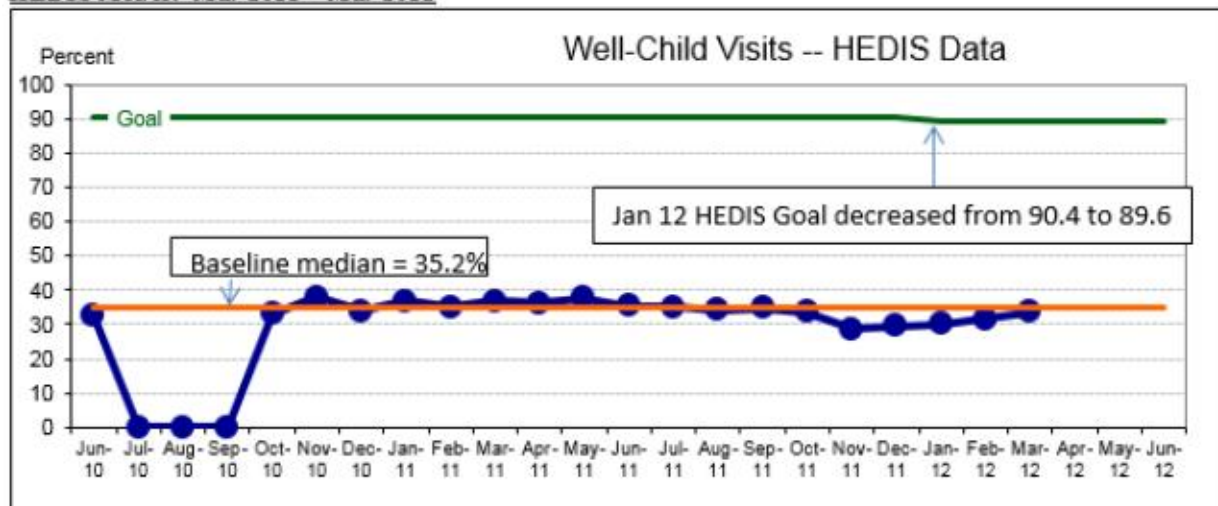
This project and the principles used continued to be utilized at Aviano and the initiative and the broader program was actually identified as a model for development of other programs following the executive summary distribution. I used the same process at my next two Commands and have trained dozens of officers on the concepts used to replicate this and develop additional programs on their own.

**HEDIS Performance Metrics for Aviano (age 42-69) Oct 2010 – June 2011:**



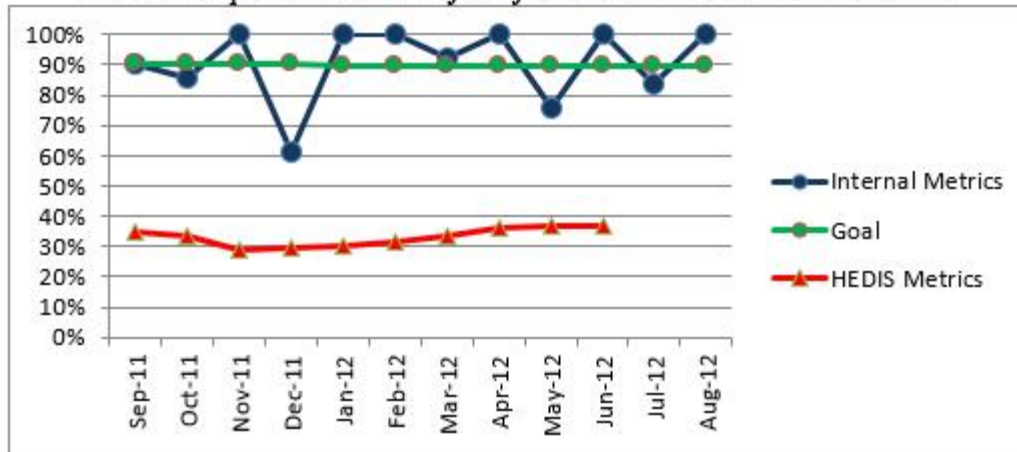


### HEDIS Metric: Mar 2011 – Mar 2012

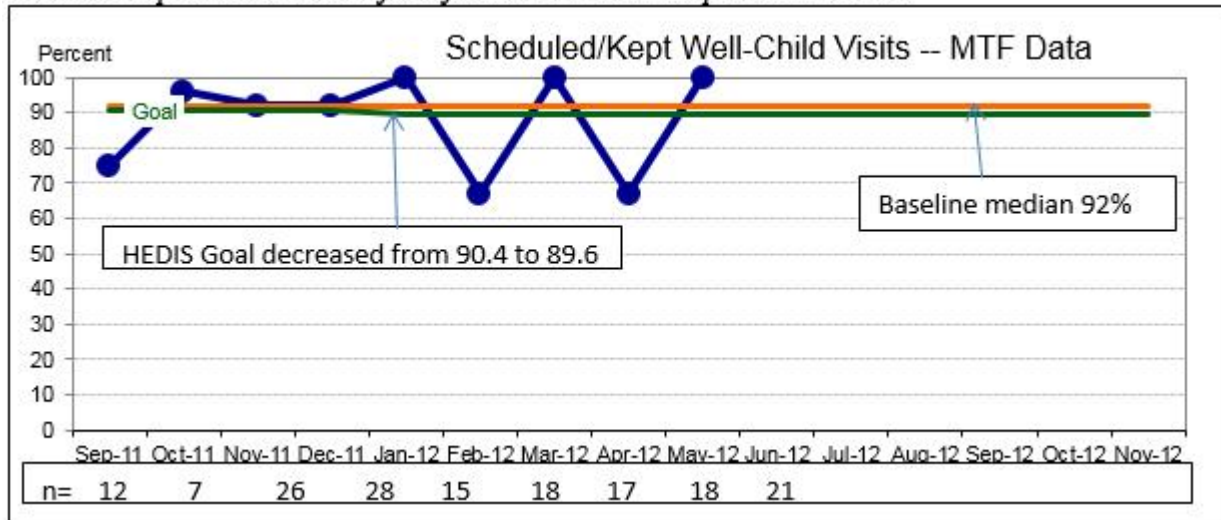




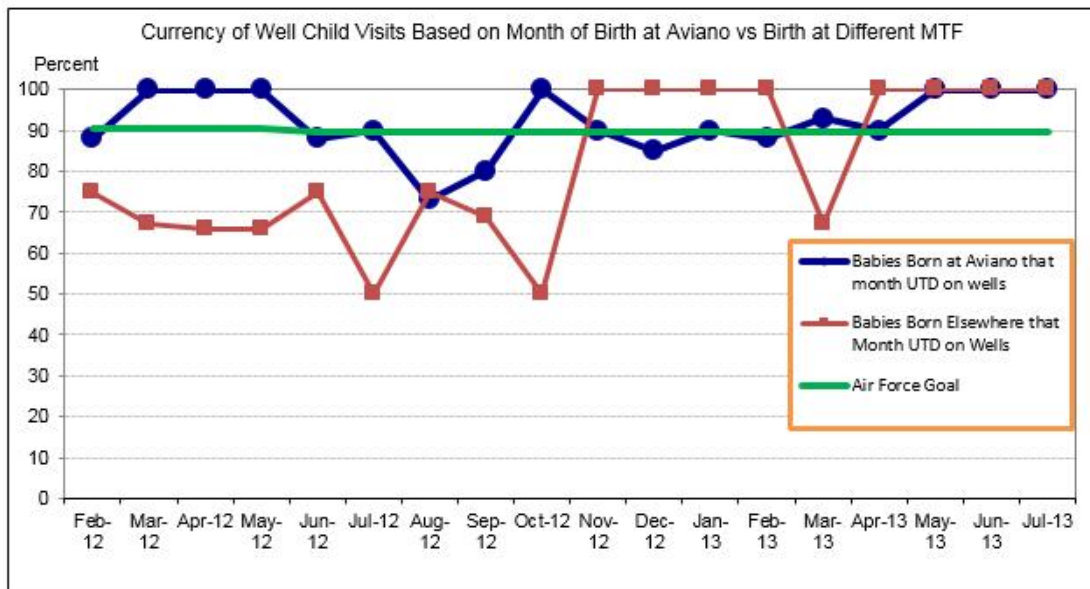
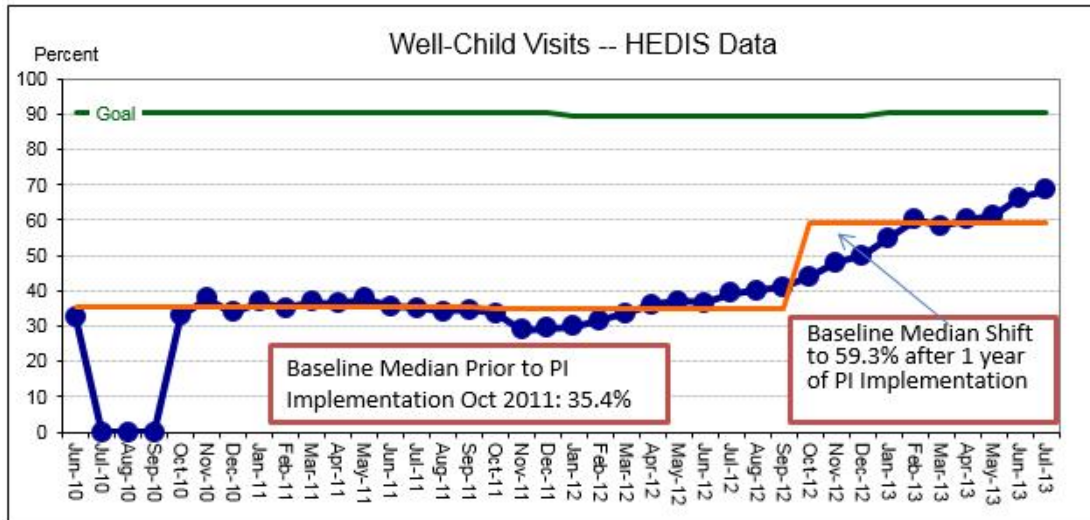
*Scheduled/Kept Well Child Visits for Infants born at Aviano vs. HEDIS Metrics*



*Scheduled/Kept Well-Child Visits for Infants born at Aviano Sep 11 to June 2012:*







## Second Project or Initiative:

\* Briefly describe the project/initiative:

"Door-to-Floor" time had been identified as a measure reflecting efficient operations in the E.R., with ancillary services (lab/radiology), consulting and admitting services, and on floor/bed space management. In order to improve my institutions performance, I chartered a multi-disciplinary process improvement initiative, formalized reporting and analysis, directed smaller working groups to support the effort, and directly taught staff QI/PI techniques to develop corrective action plans. I then was responsible for reviewing progress and reporting this to the Executive Committee and higher headquarters in the Air Force.

\* Describe the specific role that you played in this project/initiative. Include an estimate of the time you devoted to this specific project/initiative.

As the Commander, Medical Operations Squadron, I led the primary care clinics (including residency/training programs), non-surgical subspecialty clinics, physical medicine clinics, emergency room, and mental health services. I identified the door-to-floor time as a proxy measure for the integration and efficiency of my areas of responsibility across the hospital. From the emergency room staff, to admitting residents, through to the attending physicians and the floor staff. I also saw it as a measure indicating our success in coordinating with the lab, radiology, and surgical services that belonged to other Squadrons. Door-to-Floor time had been identified as a metric to be reported to the hospital executive staff (and to higher headquarters) already but when I looked at how the institution was tackling improvements I noted the focus was entirely on the actions of the E.R. staff and changes in the equipment and physical layout of the E.R. I felt applying some basic process/quality improvement techniques in a standardized way would lead to improvement. I required reporting on the daily log of all cases that exceeded our target time with a subsequent review at the Flight level (Chief of Emergency Services) followed by a weekly review of any choke points, process problems, or staffing issues with the primary care and non-surgical service chiefs. This lead to some early improvements; protocols for direct booking into empty clinic appointments from the E.R., analysis of peak E.R. appointment times and matching of acute appointment templating in the primary care clinics, and cross talk between attending physicians on how to help residents work efficiently. I reviewed changes and improvements weekly with my senior staff at our Squadron meeting to ensure coordination or to help with resourcing or training considerations.

I also requested and coordinated cooperation from the Chief of Medical Staff and other Commanders for a monthly review of cases across all services (to include lab/radiology/surgery, etc.) for common cause identification and problem resolution. I reviewed focus improvements and changes on the metric at the monthly Executive Staff meeting. This lead to improvements in time on study completion, rule sets for labs done in the E.R. vs on the floor, and to improved focus from consultant services on timely disposition. I would estimate I spent 70 direct hours working this over a two-year period divided between initial initiative launch, staff education, mentoring, data analysis, and reporting.

\* Describe how this project/initiative contributed to the quality and/or safety mission of your organization or the overall quality of healthcare in your region or beyond.

This project significantly improved the time from patient presentation through decision for admission and admission on the floor. Reducing delays in diagnosis and treatment are key, as is maintaining access to open E.R. beds to the remainder of our population. "Bed Lock" either on the floor in the E.R. should be eliminated whenever possible and any cases where delays are seen should be analyzed as acceptable variants or learning opportunities. This improves the patient experience through timely assessment and patient safety by minimizing delays and maintaining capacity without the system to maintain access for additional patients.

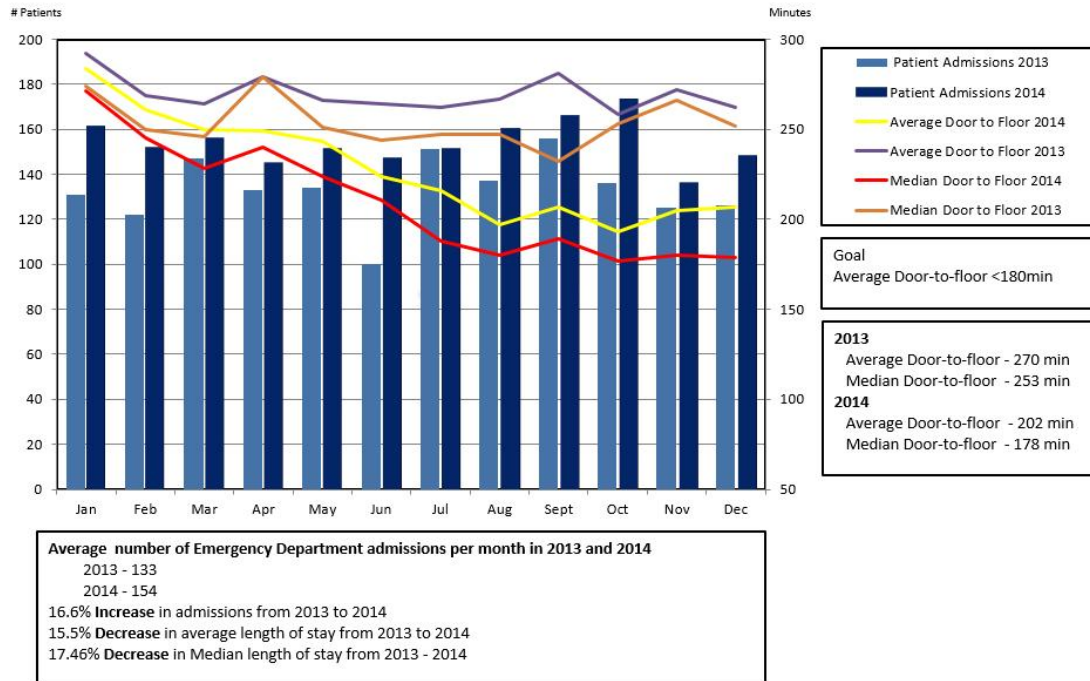
\* Attach specific quantitative evidence, up to 5 attachments, showing the impact of the project or initiative. Utilize the text field to describe this evidence.

Please note the attached slides that were posted in the E.R. as well as presented at the hospital Executive Committee on a recurring basis. The earlier set was more focused, with subsequent looks including additional break out components but were part of the same ongoing project.

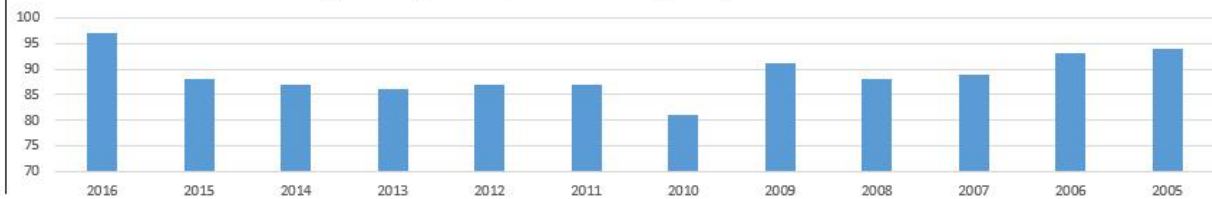
\* Describe how this project has been, or will be, sustained over time.

Initial focus on door-to-floor time evolved over time to assess various components (including relative patient volume, complexity, etc.). The reviews at the E.R., interservice, and hospital level continue today and the initial success has been sustained through staff turnover and intermittent manning challenges. Our door-to-floor times have been the best in the Air Force for all reporting periods of the last year and several of the changes initiated have been shared as best practices with other Air Force institutions.

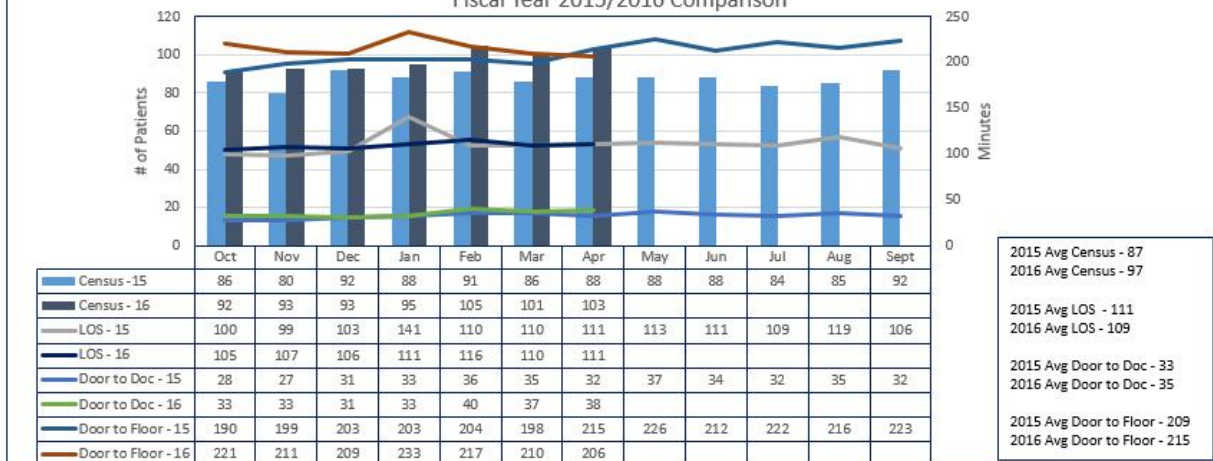
### 2013 - 2014 Emergency Department Door-to-Floor Comparison



### Eglin Emergency Department Average Daily Census 2005 - 2016



### Fiscal Year 2015/2016 Comparison

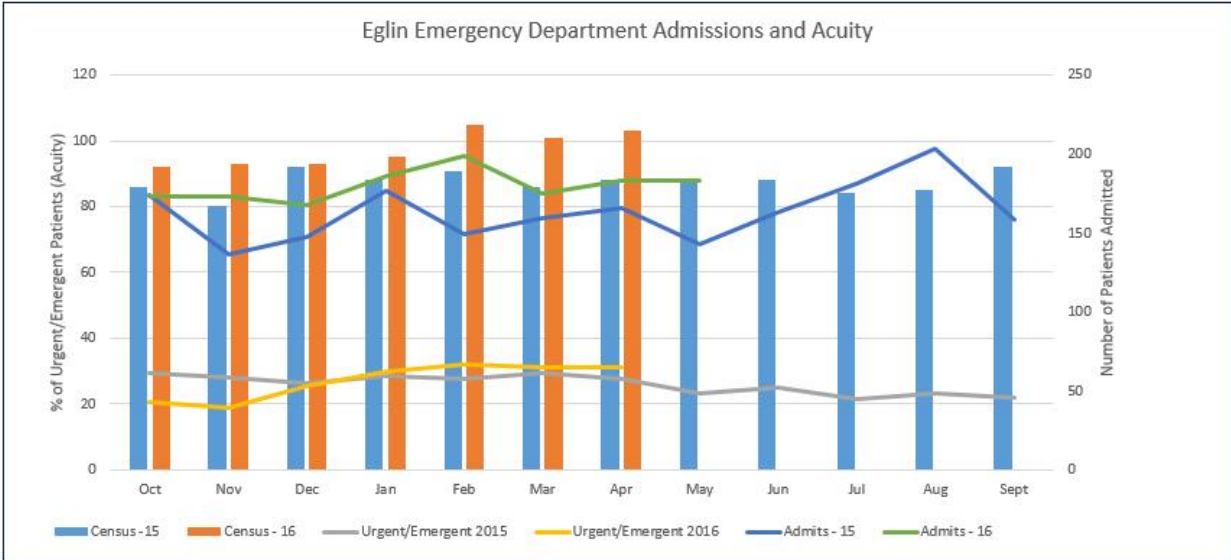


\* Door to Doc is from the time of check-in until seen by the provider

\* Length of Stay (LOS) is an average (for all patients seen on a given day) from check-in until discharge or admission

\* Door to Floor is for admissions and begins at check-in and stops when the patient departs the ER

AFMOA goals are: LOS < 180 minutes; Door to Doc < 30 minutes; Door to Floor is < 180 minutes. Currently Eglin is number one among AF MTFs in Length of Stay, Door to Doc and Door to floor. Annual average patients seen 35K (from 97 average census X 365= 35,405)



\* Acuity (as a percentage of patients seen) has been increasing as well as our admission rates